

**Attachment B**

<b>Overview of Requirements for Laboratory Testing for Diphtheria</b>					
<b>Test name</b>	<b>Specimens to take</b>	<b>Timing for specimen collection</b>	<b>Transport requirements</b>	<b>Collection &amp; notification requirements</b>	<b>Notes</b>
Culture	<ul style="list-style-type: none"><li>Swabs of nose, throat, and membrane (or other infected body site) of case</li><li>Swabs of nose and throat of close contacts</li></ul>	As soon as possible, when diphtheria is suspected	< 24 hours: Amies or modified Stuart's medium  ≥24 hours: silica gel sachets	Physicians or labs call MA SLI Bacteriology Lab 617-983-6607 and MA Immunization Program 617-983-6800 regarding suspect case. MDPH may call CDC diphtheria lab at 404-639-1730 or 404-639-4057	Available at MA SLI and elsewhere. Alert lab that diphtheria is suspected to ensure that tellurite-containing media is used. After isolation, biotype (strain) and toxigenicity can be determined.
PCR	Swabs (as above), or pieces of membrane or biopsy tissue of case	As soon as possible, when diphtheria is suspected	Silica gel sachet, or a sterile dry container at 4 <sup>0</sup> C	Contact as above	Available only at CDC. Alert lab that diphtheria is suspected so that specific PCR assay is used. Can detect non-viable organisms and toxin gene. Provides supportive evidence for, but not confirmation of, diagnosis.
Toxigenicity testing (Elek test)	Isolate from culture of case (above)	After <i>C. diphtheriae</i> has been isolated	Transport medium such as Amies medium or silica gel sachets	Contact as above	Available at MA SLI, CDC, and elsewhere.
Serology (antibodies to diphtheria toxin)	Serum of case	Before administration of antitoxin or vaccine, collect paired sera, taken 2-3 weeks apart	Frozen (-20 <sup>0</sup> C)		Available only at CDC. If acute antibody levels are low, diphtheria can't be ruled out; if acute levels are high, diphtheria is unlikely to be cause of illness.

Adapted from Manual for the Surveillance of Vaccine-Preventable Diseases, CDC, September 1999, Chapter 19, Table 3.

1/19/2000